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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,080	11/22/1999	JOUNG-KYOU PARK	678-335-(P85	3345

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EXAMINER
NGUYEN, FRANCIS N

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 12/17/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary

Application No.	Applicant(s)
09/447,080	PARK ET AL.
Examiner	Art Unit
FRANCIS NGUYEN	2674

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE __*THREE*__ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _Sep 17, 2001_

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-6_ is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-6_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requiremen

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☒ The proposed drawing correction filed on _Sep 17, 2001_ is: a) ☒ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Response to Amendment

1. The amendment filed on 9/17/2001 is entered. The formal drawings submitted on 9/17/2001 are entered and approved by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said strokes" in Amendment page 9, lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "said strokes" in Amendment page 9, lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "said character" in Amendment page 10, line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4.   Claim 5-6 are rejected under 35 U.S.C. 102 (e) as being anticipated by Van Kleeck (U.S.

Patent 6,008, 799).

5.   As to **claim 5**, Van Kleeck discloses a character recognition method (column 1, lines 6-7)

for recognizing character input through a touch screen (**On-screen keyboard 104 , column 3**, lines

62-67) , comprising the steps of :

storing touch screen data generated from an input of a character (**on-screen keyboard**

data input as shown in step 1506 of figure 15A stored in data input buffer 121 of memory 11,

column 4, lines 21-26);

performing character recognition of said stored touch screen data as a character (**receive**

prefix character string in step 2201 as shown in figure 2201) ; and

in case that another touch screen data is generated within a predetermined waiting threshold

time (**using timer provided by operating system 115 to a developer to set an arbitrary time**

threshold period in application program 123, column 10, lines 15-17 , **timer button 219** as

shown in figure 2A), stopping the above operation and adding both the previously generated touch

screen data and the newly generated touch screen data together as one character to thereby perform

the character recognition   (**document box displays word "te"** after user initiated with "flick" in

region 309 on letter 201 as shown in figure 3, user actuates letters 'x" and "t", document box

completes entry with "text", column 6, lines 28-37).

6.   As to **claim 6**, note the same citation for claim 5. Van Kleeck further teaches the further step

of outputting a character code corresponding to a result of said character recognition when a further

touch screen data is not recognized within said predetermined waiting threshold time (**user initiated**

"k", "e", "y", and document box 203 displays word "keyboard" after user selection in

dictionary list box 209, column 6, lines 50-65).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section
> 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the
> subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

8.   Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Kleeck.

9.   As to **claim 1**,   Van Kleeck discloses a character recognition device (**pen-based computer**

system as prior art, column 1, lines 21-23, **system for entering character data with an on-screen**

keyboard, column 3, lines 19-21) for recognizing character input through a touch screen (**on-**

screen keyboard 104 as shown in figure 1, column 6, lines 15-18, **character recognition in steps 1506 through 1536 as shown in figure 15A)** , comprising:

a touch screen data recorder for storing touch screen data generated from an input of a character (**data input storage area 121** as shown in figure 1);

a timer for counting a predetermined waiting threshold time (**timer provided by operating system 115 to a developer to set an arbitrary time threshold period in application program 123**, column 10, lines 15-17 , **timer button 219** as shown in figure 2A);

a character recognition processor for performing character recognition of said stored touch screen data as a character (**processing unit 109 in conjunction with operating system 115 and application program 123**, as shown in figure 1), wherein a freshly stored touch screen data generated (data immediately stored in **data input storage area 121** as shown in figure 1) before completion of counting the predetermined waiting threshold time is added to the previous touch screen data to complete said character (**document box displays word "te"** after user initiated with "flick" in region 309 on letter 201 as shown in figure 3, user actuates letters 'x" and "t", document box completes entry with "text", column 6, lines 28-37) .

Van Kleeck fails to expressly teach a timer for counting a predetermined waiting threshold time when there is no touch screen data generated; no touch screen data generated implies an idle period, -- no input from the user. However, **energy constraints** (e.g. processor with high operating clock, memory circuitry to be periodically refreshed, not only consumes power but also dissipates unnecessary heat when idle period occurs), **display screen constraints** (e.g. CRT teminals are

subject to damage without screen saver function, backlight of liquid crystal display typically drain on battery life at prolonged period) **impose on developer' s approach to have polling scheme using timer to minimize idle period (e.g. polling activity from mouse or keyboard). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Van Kleeck, then implement the timer accesssible by operating system 115, as taught by Van Kleeck, to specifically poll activity of user input to on-screen keyboard 104 , by adding said specific polling function in application program 123, because it would result in minimal idle period, consequently less unproductive task/process, also it would result in meeting both energy and display constraint requirements (e.g. screen saver activated to protect screen from phosphor burning damage, backlight automatically turnoff after a period of absence of user input to save power especially in portable terminal apparatus, microprocessor changed to low-power sleep state for power saving).**

10.   As to **claim 2, note the same citation** for claim 1. Van Kleeck further discloses said that character recognition processor outputs a character code corresponding to a recognized character when another touch screen data is not generated before completion of counting to said predetermined waiting threshold time (**user initiated "k", 'e", "y", and document box 203 outputs word "keyboard" after user selection in dictionary** list box 209, column 6, lines 50-65).

Allowable Subject Matter

11.   **Claim 3** would be allowable if rewritten or amended to overcome the rejection(s) under 35
U.S.C. 112, 2nd paragraph, set forth in this Office action.

12.   **Claim 4** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112,
2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and
any intervening claims.

Response to Arguments

13.   Applicant's arguments filed on 9/17/2001, as to claims 1-2, 5-6 have been fully considered
but they are not persuasive.

Applicant's argument (in claims 1-2) as to Van Kleeck failing to provide suggestion to combine a
power saving scheme with a predetermined waiting threshold time is not valid because "the
suggestion to modify the art need not be expressedly stated in the references. *Goodrich; Pro-
Mold.* The test is simply whether the prior art would have rendered the claimed invention
obvious to one of ordinary skill in the art". *In Re Napier,* 55 F.3d 610, 613 [34 USPQ2d1782]
(Fed. Cir. 1995)

At the time of the invention, the examiner again submits that power saving scheme is critical
in electronic portable apparatus comprising an onscreen keyboard, which corresponds to the
claimed character recognition device comprising a touch screen data recorder.

Applicant's argument (in claims 1-2) as to Van Kleeck failing to provide a system that can be used for recognition of characters entered by the user via a single or combination of strokes is not valid since Van Kleeck (figure 15A) teaches several modules which process letter button actuation, after user input from on-screen keyboard as taught in step 1506. The examiner submits that Applicant's response did affirm that cited art Van Kleeck discloses a character recognition process...(Top of page 5, paper # 4).

Applicant's argument (in claims 5-6) as to Van Kleeck failing to teach character recognition is not valid for the same reason the examiner just stated above. The examiner submits that Van Kleeck also discloses the use of flick asides button actuation (drag by a pen, column 1, lines 55-61) which correspond to the claimed combination of strokes; is this not character recognition based on the current claim breadth?

Therefore, claims 1-2, and 5-6 remain rejected.

14.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to

37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Francis Nguyen** (8:00AM to 4:30PM) whose telephone number is **(703) 308-8858.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe,** can be reached at **(703) 305-4709.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington,

VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Francis Nguyen

December 10th, 2001

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600